

**DEPARTMENT OF TRANSPORTATION****Coast Guard****33 CFR Part 164****[CGD 94-020]****RIN 2115-AE91****Navigation Safety Equipment for Towing Vessels****AGENCY:** Coast Guard, DOT.**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard proposes to require that towing vessels carry and properly use equipment such as radars, compasses, marine charts or maps, and publications and that they choose, inspect, and maintain towlines. This rule is necessary as part of a comprehensive initiative to improve navigational safety for towing vessels. If it becomes final, it will help prevent another catastrophic train-wreck such as that of the *Sunset Limited* in Alabama during September, 1993, and another spill such as that off Puerto Rico during January, 1994.

**DATES:** Comments must be received on or before February 1, 1996.

**ADDRESSES:** Comments may be mailed to the Executive Secretary, Marine Safety Council (G-LRA, 3406) (CGD 94-020), U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001, or may be delivered to room 3406 at the same address between 8 a.m. and 3 p.m., Monday through Friday, except Federal holidays. The telephone number is (202) 267-1477. Comments on collection-of-information requirements must be mailed also to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street NW., Washington DC 20503, ATTN: Desk Officer, U.S. Coast Guard.

The Executive Secretary maintains the public docket for this rulemaking. Comments will become part of this docket and will be available for inspection or copying at room 3406, U.S. Coast Guard Headquarters, between 8 a.m. and 3 p.m., Monday through Friday, except Federal holidays.

A copy of the material listed in Incorporation by Reference of this preamble is available for inspection at room B-726, U.S. Coast Guard Headquarters.

**FOR FURTHER INFORMATION CONTACT:** Mr. Edward LaRue, Vessel Traffic Services Division (G-NVT), Office of Navigation Safety and Waterway Services, (202) 267-0416, or LCDR Suzanne Englebert, Project Development Branch (G-MES-2), Office of Marine Safety, Security and

Environmental Protection, (202) 267-6490.

**SUPPLEMENTARY INFORMATION:****Request for Comments**

The Coast Guard encourages interested persons to participate in this rulemaking by submitting written data, views, or arguments. Persons submitting comments should include their names and addresses, identify this rulemaking [CGD 94-020] and the specific section of this proposed rule to which each comment applies, and give the reason for each comment. Please submit two copies of all comments and attachments in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. Persons wanting acknowledgment of receipt of comments should enclose stamped, self-addressed postcards or envelopes.

The Coast Guard will consider all comments received during the comment period. It may change this proposed rule in view of the comments.

The Coast Guard plans no public meetings. Persons may request a public meeting by writing to the Marine Safety Council at the first address under **ADDRESSES**. The request should include reasons why a hearing would be beneficial. If the Coast Guard determines that the opportunity for additional oral presentations will aid this rulemaking, the Coast Guard will hold a public meeting at a time and place announced by a later document in the Federal Register.

**Drafting Information**

The principal persons involved in drafting this document are Edward LaRue, Project Manager, Vessel Traffic Services Division (G-NVT), LCDR Suzanne Englebert, Project Manager, Project Development Branch (G-MES-2), Office of Marine Safety, Security and Environmental Protection, and Pat Murray, Project Counsel, Office of Chief Counsel.

**Background and Purpose**

This proposed rule, if it becomes final, will constitute part of a comprehensive initiative by the Coast Guard to improve navigational safety for towing vessels. While other regulatory efforts are concentrating on reporting of casualties, on licensing, and on training on radar, this rule would help ensure that the mariner piloting a towing vessel has adequate equipment to safely navigate the waters being transited. It would impose the following: (1) Requirements for carriage of radars, searchlights, radios, compasses, swingmeters, echo depth-sounding devices, electronic position-fixing devices,

marine charts or maps, and publications; (2) requirements for proper use of this navigational equipment; (3) requirements for maintenance, inspection, and serviceability of towlines, towing gear, and terminal gear; and (4) general requirements for navigational safety.

**Review of Marine-Safety Issues Related to Uninspected Towing Vessels**

Soon after the fatal accident on September 22, 1993, near Mobile, Alabama, in which a barge collided with a railroad bridge and caused the *Sunset Limited* to plunge into a bayou, the Secretary of Transportation directed that the Coast Guard and the Federal Railroad Administration review the circumstances of the accident and undertake initiatives to minimize the risk of any similar tragedy in the future. Later, on March 2, 1994, the Coast Guard published (59 FR 10031) a notice of meeting and availability of study that announced both the availability of a study prepared by the Coast Guard, "Review of Marine Safety Issues Related to Uninspected Towing Vessels," and a meeting to review the study and to seek public comment on the recommendations made in the study.

The study examined marine-casualty statistics over a 12-year period (1980-1991). The Coast Guard made 19 recommendations: on the reporting of marine casualties and hazardous conditions; on bridge-fendering systems and navigational lighting; on the adequacy of the Aids to Navigation System for marking the approaches to bridges over navigable waterways; on the training and licensing of operators of uninspected towing vessels (OUTVs); and on—the subject of this proposed rule—the adequacy of navigational equipment for uninspected towing vessels (UTVs).

The public meeting announced [59 FR 10031] on March 2, 1994, was held on May 4, 1994, to discuss regulatory initiatives of the Coast Guard stemming from the derailment of the *Sunset Limited*. This meeting was well attended by the public, representing a wide range of towing and other interests. Right afterward, the Towing Safety Advisory Committee (TSAC) formed a working group of towing experts from the industry (TSAC working group) to help the Coast Guard formulate standards. A meeting of the TSAC working group was announced (59 FR 13353) on March 21, 1994, and held on April 5, 1994; and the group made recommendations to the full TSAC at its public meeting on May 6, 1994.

In the notice of March 2, 1994, the Coast Guard had specifically sought comments on a proposal to require radar and marine charts or maps and publications aboard towing vessels and—the subject of a separate rulemaking—to require that the operator of the radar system be a qualified radar observer. The Coast Guard received a total of 23 comments in response to the notice. A summary of them appears in the following section, Discussion of Proposed Rules.

During the public meeting, the Coast Guard also recognized the significant impact of improper towlines and related towing gear on navigational safety. The need to regulate these lines and gear, within any comprehensive navigational-safety proposal, had been made manifest by the tragic spill along the coast of Puerto Rico near San Juan, in January 1994. The T/B MORRIS J. BERMAN lost about 750,000 gallons of #6 fuel oil when the towing vessel's towline parted and the vessel was unable to recover the barge before it went aground. Groundings, delays of shipping, collisions, and allisions with bridges are all by-products of the improper use of towing gear. Ensuring that the towing vessel has sufficient navigational equipment to fix its position will make little sense unless the vessel is made fast to its tow.

#### Discussion of Proposed Rules

*1. Scope of application and exemptions.* This proposed rule would apply to all towing vessels 8 meters (26.25 feet) or more in length operating in the navigable waters of the United States, except for certain yard craft used in restricted service and for assistance towing vessels.

The applicability of these requirements was discussed at length in both the public meeting and the meeting of the TSAC working group, which recommended that towing vessels less than 8 meters (26.25 feet) in length not pushing barges, and towing vessels under 15 meters (around 50 feet) used only for towing disabled vessels, be exempt from these requirements. One attendee at the public meeting questioned whether these requirements would unduly burden small towing vessels primarily engaged in rescuing recreational boats. Several attendees urged the exemption of yard craft or fleeting boats operating only within a limited geographic area from these requirements. Others pointed out, however, that, on the lower Mississippi, fleeting boats are generally equipped with radar, to operate in restricted visibility and monitor their fleets for break-away barges.

The Coast Guard has proposed a general criterion of 8 meters (26.25 feet) in length because this excludes most of the small craft that neither tow barges nor operate offshore in heavy weather. Also, this length is consistent with the rules of the Vessel Bridge-to-Bridge Radiotelephone Act (codified as 33 U.S.C., Chapter 24) and with the Vessel Traffic Service regulations.

Proposed § 164.01(b)(1) would exempt most yard and fleeting craft from the requirements in proposed § 164.72. It would exempt those yard and fleeting craft used solely for making up or breaking up tows or other work in and around piers or fleeting areas. While the navigational equipment in the latter section may be valuable for many yard craft, it may not be for others. To prevent abuse of this provision, this rule would give wide discretion to Captains of the Port (COTPs) to determine whether particular vessels should be exempt and to allow sufficient time for those that should not to be brought into compliance. There may be areas where fleeting boats routinely cross busy navigable channels or operate in crowded harbors. In such areas, this exemption would be inappropriate. Owners, operators, or masters of vessels could ask COTPs to declare in advance whether certain vessels are exempt.

Further, proposed § 164.01(b)(2) would exempt towing vessels engaged solely in rescue and assistance from the requirements in proposed § 164.72. An entire industry catering to the towing of disabled recreational boaters has developed in recent years. These rescue-and-assistance towing vessels are usually small and are generally recognized by their local Coast Guard search-and-rescue stations as alternative-assistance vessels. The mariners operating these vessels also satisfy licensing requirements more stringent than their counterparts aboard typical small vessels. Because of their limited operating nature, § 164.01(b)(2) proposes an exemption from § 164.72; however, if any of them also engages in salvage work or commercial towing of barges, vessels, or objects not in distress, many of the proposed requirements would be appropriate. An exemption from the proposed requirements of § 164.72 should be based on the entire scope of work an owner, master, or operator of a vessel declares. With the help of TSAC, the Coast Guard is developing criteria to assess whether a size or type of commercial towing operation should also be exempt from the requirements in § 164.72. The Coast Guard solicits comments on this matter.

*2. Definitions.* Based on the recommendations of TSAC on current

operating practices within the towing industry, this proposed rule would divide areas of operation into rivers, Western rivers, U.S. navigable waters other than rivers and Western rivers, and waters seaward of U.S. navigable waters or, for vessels operating on the Great Lakes, waters over three nautical miles from shore. The definitions proposed in § 164.70 distinguish the areas of operation and are consistent with the International Regulations for Preventing Collisions at Sea, 1972 (codified as 33 U.S.C., Chapter 30); the Inland Navigational Rules Act of 1980 (codified as 33 U.S.C., Chapter 34); and 33 CFR part 2.

*3a. Radar.* A marine radar is an essential piece of navigational-safety equipment. Radar not only provides a means of detecting and avoiding other vessels at great distances and in restricted visibility, but allows the operator or master of the vessel to navigate safely on constricted waters in reduced visibility. During the public meeting and in meetings with the TSAC working group, members of the industry strongly endorsed a requirement for radar on board towing vessels and indicated that most towing vessels already, voluntarily, carry radar.

The Coast Guard considered specifications for radar equipment for navigational safety and, after considerable deliberation and consultation with industry, would require in § 164.72(a)(1) a radar meeting minimum marine specifications. Basic features necessary for safe navigation by radar come with almost every modern radar set: bearing-lines, ship's-heading marker, range rings, variable range-scales, and variable pulse-width. Other features, which are desirable, come only with higher-quality commercial radars: higher power, which permits detection at longer range and better detection of small targets at closer range; interference rejection, which prevents interference from other radars operating on similar frequencies; and track histories, which allow display of relative motion of other vessels. Into § 164.03(b) performance standards for marine radar, developed by the Radio Technical Commission for Maritime Services (RTCM), would be incorporated by reference. This approach would ensure the installation of an appropriate radar for the marine environment, yet would allow for the rapid changes in electronic technology and the inability of any regulatory regime to keep up with them. Furthermore, because this rule would apply broadly, while covered vessels differ widely, requiring features instead of standards might make equipping

smaller vessels with radar impracticable and cost-prohibitive.

The Coast Guard recognizes that owners or operators of vessels would need to assess their radar needs and local radar availability. Therefore, the Coast Guard is proposing in § 164.72(a)(1) that the radar requirement become effective 1 year after the effective date of the final rule. It is imperative that radars be of marine quality and meet minimum standards; therefore, instead of giving an indefinite grandfather clause to those vessels with existing radars of unknown quality, the Coast Guard has proposed in § 164.72(a)(1)(iv) a longer phase-in period for vessels with existing radars that do not meet performance standards of RTCM for marine radar.

**3b. Public comments on radar.** The Coast Guard received 11 comments on the recommendation by the study that towing vessels of 8 meters (26.25 feet) or more in length carry radar. Of these, 5 generally supported the recommendation. Of these, one urged that the requirements regard size, service, trade, and location of vessels. Another urged that they regard at least size and operating-area. A third suggested rulemaking under the Ports and Waterways Safety Act (33 U.S.C. 1221, *et seq.*), which would require UTVs to carry surface-navigation radar. A fourth supported upgrading the radar already aboard towing vessels. A fifth, while generally supporting the use of radar aboard those vessels, argued that this use should not be mandatory and that, if it became so, the rule should consider both spatial limits and operational needs. Again, the approach of this proposed rule is to avoid features and to favor standards, which address these matters.

Of the other six comments, one urged the Coast Guard to require that all towing vessels, not just those of 8 meters (26.25 feet) or more in length, carry radar. Contrary to this, another comment urged the Coast Guard not to require that all such vessels of 8 meters (26.25 feet) or more in length carry radar and that lower tonnage or horsepower or smaller tows should relieve such vessels of the burden. A third urged the Coast Guard to require that every towing vessel carry two surface-navigation radars. A fourth urged the Coast Guard to require that every such vessel carry two commercial radars of which at least one must be working. A fifth urged the Coast Guard to address not the carriage of radar at large but the use of it in certain areas.

The Coast Guard has determined that 8 meters (26.25 feet) is an appropriate minimal length. It also considered

towing vessels' operating areas by exempting fleeting tugs, by requiring minimal performance standards for vessels operating within three nautical miles of shore, and by ensuring that radar of vessels on voyages offshore meet higher performance standards for the more severe weather and sea conditions. The performance standards of the RTCM for marine radar already take account of vessel sizes and routes of vessels by addressing capability of radar units, yet they do not dictate sizes of radar screens and scanners for vessels operating within three nautical miles of shore. The Coast Guard also recognizes the advantages of redundancy and of some preference to have both "S" band and "X" band radar capability. Two radars are not proposed in § 164.72(a)(1), because this rulemaking seeks only to require minimal requirements; it does not preclude installing added equipment if owners, operators, or masters of vessels determine that it is needed, and it assumes that, once a radar is installed, it operates correctly.

The sixth comment asked whether an inoperable radar would constitute a "hazardous condition" as defined by 33 CFR 160.203. This proposed rule would allow for continued operation of the towing vessel with an inoperable radar, though it would also call in § 164.82 for the reporting of inoperable navigational equipment.

**4. Searchlight.** The Coast Guard is proposing in § 164.72(a)(2) that towing vessels be equipped with searchlights. A properly operating searchlight is an essential tool for the towing vessel. It is useful not only in navigating within restricted waterways but also in checking conditions of tows and warning other vessels of the presence of towlines. The TSAC working group specifically recommended that every towing vessel carry a commercial searchlight that could be directed by the vessel's operator or master. For a small vessel with an open steering station, a hand-held spotlight would suffice. For a typical towing vessel navigating with a one-person watch—in which the sole qualified operator or master acts as lookout, helmsman, and navigator—the controls of the searchlight must be accessible from the main steering station. For a large vessel, remote controls may be necessary. The Coast Guard has found that searchlights with remote control are common in the towing industry and are available at relatively low cost.

A searchlight is not a navigation light, for which uniform specifications are essential. The Coast Guard proposes in § 164.72(a)(2) to ensure that the

searchlight is an adequate tool. (The Coast Guard suggests, though it does not require, that the searchlight be housed in a weatherproof fitting, be designed for marine use, project a focused beam, and provide a minimum of 200,000 candle-power.)

**5. VHF-FM Radio.** VHF-FM radios are required by the Vessel Bridge-to-Bridge Radiotelephone Act (33 U.S.C. 1201–1208), the Communications Act of 1934 as amended (47 U.S.C. 151 *et seq.*), and the Agreement Between the United States of America and Canada for the Promotion of Safety on the Great Lakes by Means of Radio, 1973. Section 164.72(a)(3) reiterates these requirements.

The Coast Guard may require within this section a source of power to the radio in an emergency. This second source would ensure that at least one installed radiotelephone could function if the vessel lost power. The Coast Guard is soliciting comments on whether to require that the VHF-FM radio on a towing vessel have an emergency or back-up source of power.

**6. Compass.** The compass is a piece of navigational equipment essential in many places. This proposed rule would require in § 164.72(a)(4) an illuminated magnetic compass aboard every towing vessel, except one operating solely on rivers and Western rivers as defined by this rule.

To navigate safely, a vessel operating in open waters must know its heading. A compass provides this—through dead reckoning (in restricted visibility or out of sight of landmarks); through fixes (in good visibility or within sight of landmarks); through checks on the effects of current or wind on course made good; and through indications of rate of turn for a tow.

The TSAC working group recommended a marine compass that should (1) operate satisfactorily and remain usable under the operational and environmental conditions likely to be experienced; (2) have a compass card that is readable both during the day and at night; (3) be installed on, or as close as possible to, the vessel's centerline; (4) be installed so that, from its position, the view is as nearly uninterrupted as possible for the taking of bearings; (5) be clearly readable by the helmsman at the main steering station; (6) be installed as far as possible from any magnetic material; (7) have the compass card suspended in gimbals so that it cannot be dislodged and remains readable in any sea or weather; and (8) not be a fluxgate compass unless it can operate reliably on steel-hulled tugs without constant adjustment, particularly when the tugs are picking up and dropping off

different configurations of steel-barge tows. The Coast Guard recognizes the recommendations of the TSAC working group as fitting guidelines for the magnetic compass. It does not propose the use of a fluxgate magnetic compass in § 164.72(a)(4), because of the reliance of this type of compass on external power.

The Coast Guard also considered and rejected an absolute requirement that every towing vessel carry a magnetic compass. It decided to provide towing vessels operating solely on rivers with a swing-meter exemption from this requirement, for the following reasons: (1) On rivers traffic essentially flows up or down the rivers. (2) On rivers masters or other operators are continually changing course so as to account for currents, eddies, and bends, without reference to magnetic headings. (3) While most nautical charts or maps display a compass rose, most river maps display just a "north marker." And (4), although a magnetic compass would furnish some information on the swing of a vessel, a purpose-built swing-meter furnishes more.

7. *Swing-Meter*. During both the public meeting and the meeting of the TSAC working group, the Coast Guard heard repeated testimony that on winding rivers a magnetic compass was less useful than a swing-meter (rate-of-turn indicator). The TSAC working group ultimately advised against a requirement of swing-meters, but even it acknowledged that they are often of immense value to vessels pushing barges ahead on rivers and inland waters.

To accommodate areas where a swing-meter may be of more navigational use than a magnetic compass, § 164.72(a)(4)(i) would allow a towing vessel to have either a swing-meter or a magnetic compass if operating solely on rivers and Western rivers. It would not allow this for every towing vessel operating within these waters. A vessel that also operates in or crosses large port areas where its heading is needed to navigate and where charts or maps are available with compass roses should carry a magnetic compass. The COTP can clarify in advance whether a specific towing vessel may substitute a swing-meter for a magnetic compass.

8. *Echo depth-sounding device (depth-sounder)*. Proposed § 164.72(a)(5) would require a depth-sounder aboard every towing vessel on any waters except rivers and Western rivers. The Coast Guard considers a depth-sounder a valuable navigational tool on any waters, including rivers. It can not only provide immediate information on depth but also assist in fixing position.

On rivers where depth fluctuates with the gauge, a depth-sounder furnishes useful information for the return trip and, when the mariner annotates a chart or map as he or she goes, lets him or her correlate gauges with depths. Nevertheless, on rivers the actual use—as distinct from the abstract utility—of a depth-sounder can prove problematic. A portable depth-sounder may make more sense aboard a lead barge than an installed one makes aboard a towing vessel itself; yet aboard a lead barge a depth-sounder runs the greatest risk of damage from ice or flotsam. Therefore, on rivers, both whether and where to deploy a depth-sounder would remain within the discretion of the owner, operator, or master of the towing vessel.

Proposed § 164.72(a)(5) would exempt a towing vessel operating solely on rivers and Western rivers from the requirement for a depth-sounder. This exemption is not meant to include every towing vessel operating within these waters. A vessel that also operates in or crosses large port areas where water depth helps to fix the vessel's position should carry a depth-sounder. The COTP can clarify in advance whether a specific towing vessel must carry a depth-sounder.

The Coast Guard recognizes that owners or operators of vessels would need to research depth-sounders' availability. Installation is also generally completed during a vessel's drydock period. Therefore, proposed § 164.72(a)(5) would require the depth-sounder 5 years after the effective date of the final rule.

9. *Electronic position-fixing device*. This proposed rule would require in § 164.72(a)(6) an electronic position-fixing device aboard each towing vessel operating seaward of the navigable waters of the U.S. or over three nautical miles from shore on the Great Lakes. Such devices—usually, receivers for either LORAN-C or a Global-Positioning System (GPS)—have become essential pieces of navigational equipment aboard vessels operating out of sight of land. Most if not all offshore towing vessels already, voluntarily, carry these devices. The TSAC working group recommended carriage of these devices. The cost of receivers from LORAN-C and GPS continues to decline; reliability continues to improve.

The Coast Guard considered requiring the carriage of electronic position-fixing devices by all towing vessels, but decided against it. First, fixes stated in latitude and longitude on inland waterways are now of little use to the mariner, because few charts and maps of rivers give latitude and longitude. Second, although Electronic Chart

Display and Information System (ECDIS) may someday display real-time fixes on charts or maps generated electronically, requiring ECDIS would be premature until standards for the devices are adopted by the International Maritime Organization (IMO) and the devices are shown to be accurate and reliable. (Because differential GPS, or dGPS, already affords great accuracy and reliability, the Coast Guard recommends that anyone in the market for a new device consider a receiver that either picks up a dGPS signal by itself or works with a differential receiver.)

10a. *Charts or maps and publications. Charts or maps*. Proposed

§ 164.72(b)(1) would require that every towing vessel carry charts or their equivalent for the areas it transits. The TSAC working group, as well as individual participants in the public meeting, thought carriage of such charts or maps a sound idea.

The Coast Guard recognizes that, on many of the Western rivers and other inland waters, the National Ocean Service does not provide charts or maps. There, the rule specifically allows the use of maps from the Army Corps of Engineer or other river authority. One chart or map would suffice on towing vessels transiting rivers where only one is available.

The charts or maps would have to employ a suitable scale and contain suitable detail for safe navigation. (1) General charts or maps, scaled from 1:600,000 down to 1:150,000, would be suitable only for plotting a course well offshore; they contain too little detail for a towing vessel approaching shore. (2) Coastal charts or maps, scaled from 1:150,000 down to 1:50,000, are suitable for navigating inside offshore reefs and shoals, entering bays and harbors of appreciable size, and plying certain inland waterways. (3) Harbor charts or maps, scaled from 1:50,000 down, furnish details of harbors, anchorages, and small waterways. (4) Small-craft charts or maps furnish details of particular use to smaller craft; they are usually produced in strip format, which makes them useful on inland waterways.

This proposed rule would also require the chart or map to be "currently corrected" or be the "current edition." These terms refer both to the edition of the chart or map and to corrections to it. Coast Guard Navigation and Vessel Inspection Circular (NVIC) No. 7-86 entitled "Information on the Adequacy and Currency of Nautical Charts" addresses in detail the need for current nautical charts or maps on ships, and much of its commentary applies to towing vessels as well. Specifically, a

new edition of a chart or map often shows data such as new survey information, new structures, or a change in the chart's or map's datum that would not appear in a Notice to Mariners. Therefore, even a corrected chart or map, if superseded, may pose a risk to mariners. The Coast Guard recognizes that current editions of charts or maps are not always reasonably available. Where they are not, the Coast Guard would allow the use of a currently corrected edition.

Members of the public questioned the need for the most current editions of charts or maps on rivers, noting that owners, operators, or masters of towing vessels often extensively annotate their charts or maps with information on shoaling, currents, and so forth. While this annotation enhances the usefulness of superseded charts or maps, most charts or maps published by the National Ocean Service are updated when the number of corrections reach a predetermined threshold. River maps published by the Army Corps of Engineers are updated every few years. The Coast Guard has determined that the burden of transferring personal annotations to a new edition of a chart or map on such an occasional basis is far outweighed by the increase in accuracy and reliability of a current chart or map. Therefore, for vessels that operate solely in U.S. navigable waters and on routes that are frequent, short, and generally limited to a few well-annotated charts or maps, § 164.72(b)(1)(ii)(A) would require the carriage of current editions of charts or maps on board.

"Currently corrected" refers to the incorporation of corrective notices to a current edition of a chart or map that appear in Notices to Mariners. These notices, published by the Coast Guard and the Defense Mapping Agency (the Army Corps of Engineers also publishes Notices to Navigation), provide essential navigational information about specific waterways, weekly, including information on the location of dredging, obstructions in waterways, and changes in location of aids to navigation. Many towing companies indicated that they routinely use facsimile machines to transmit these notices to their vessels. However, during the public meeting there was some concern that the most recent Notices to Mariners might not always arrive on time. The Coast Guard is addressing this concern and is exploring the possibility of an electronic-bulletin-board system. Therefore, for vessels that operate seaward of U.S. navigable waters, and three nautical miles or more from shore on the Great Lakes, and on routes

offshore, and for vessels that generally rely on several corrected charts or maps, § 164.72(b)(1)(ii)(B) would require the carriage of corrected charts or maps on board. To limit the administrative burden on operators or masters, this rule would require the entry only of those changes applicable to the vessel's transit and reasonably available to the operators or masters. For example, a towing vessel with a 3-meter draft would not have to update depths in a shallow creek used by recreational boaters.

**Publications.** Every towing vessel would have to carry appropriate navigational-safety publications for the areas where it operated. These publications provide crucial information beyond that found on charts or maps: bridges' clearances and terms of openings; channels for use on radio; local limits on speed or other activities; currents; and timely advice on hazards to navigation. The publications required by proposed § 164.72(b)(2) for the most part follow those recommended by the TSAC working group. For these publications as for charts or maps, "currently corrected" implies recency and relevance. The act of shifting information from notices to publications would cost each mariner around 20 minutes a week, and this slight expenditure of time would bring two big benefits. It would force the mariner into the notices, and it would leave him or her with accurate publications for ready reference.

**10b. Public comment on marine charts or maps and publications.** Six comments addressed the recommendation of the study by the Coast Guard, that charts (including maps) and publications be carried aboard towing vessels. Three of these six supported this recommendation for charts or maps. Two more of these six also supported this recommendation for current or corrected publications, and one of these two further contended that a requirement of this nature would enhance the safety of personnel and the environment. The other also suggested that the Coast Guard consider size of vessel and area of operation while developing these requirements.

Proposed § 164.72(b) would require charts or maps and publications that cover a vessel's operational area. It does not, however, take account of a vessel's size, except as it distinguishes by applicability between vessels of 8 or more meters in length and other vessels.

One comment opposed using river charts or maps for navigation. It contended that these charts or maps are unreliable because constant changes in the river make them outdated and

because few show sets, depths, drafts, or accurate sailing lines. It added that the information on the charts or maps is often overly condensed, readable only by use of a magnifying glass.

The Coast Guard, recognizing the limits of some river charts or maps, believes charts or maps a necessary navigational tool. Individual annotation of river charts or maps adds to their utility.

One comment argued that charts or maps and publications aboard towing vessels on rivers should comprise charts or maps from the Army Corps of Engineers, Light Lists, Notices to Mariners with changes to charts or maps, and notices of regattas. (a) One comment urged that the Coast Guard accept charts or maps with changes added by hand, as well as recent charts or maps, in fulfillment of any requirement for charts or maps. (b) The same comment argued that updating publications daily is unnecessary—and a requirement of it unjustified—and suggested that the Coast Guard implement a system of looseleaf binders into which recently corrected pages could be inserted. This comment also urged that, because broadcasts to mariners by the Coast Guard are too infrequent and often are hard to understand, the Coast Guard develop a system of electronic Notices to Mariners under which current information could reach mariners at once but which, once printed, could be preserved for future reference.

The Coast Guard has allowed for the use of river charts or maps from the Army Corps of Engineers in appropriate areas. It understands the value of charts or maps with changes added by hand, but it does not regard out-of-date charts or maps, even ones annotated with care, as equivalent to current charts or maps. The Coast Guard is addressing the system of Notice to Mariners in a separate initiative and has included the issue of electronic updating within its scope rather than dealing with it piecemeal here.

**11. Towline and terminal gear.** Proposed §§ 164.74 and 164.76 would establish standards of minimal adequacy for towing hawsers, wire-rope towing cable, and associated gear and for their inspection and serviceability. Several participants in the public meeting noted that, unlike a conventional vessel, a towing vessel cannot navigate at all without taking account of another vessel or the equivalent: its tow. So an essential part of the overall navigation of a towing vessel is the gear making that vessel fast to its tow. Towlines and associated gear must be appropriate and must remain

intact throughout a voyage to ensure the safety of all mariners and of the environment.

*Towing astern.* To reflect current standards of industry, this proposed rule would codify guidelines developed by TSAC as set out by the Coast Guard in its NVIC 5-92, "Guidelines for Wire Rope Towing Hawsers." But, for a vessel towing astern, this rule would go beyond NVIC 5-92 in two respects. It would require adherence to specific standards for inspection and serviceability. And, to ensure that these governed a towline wherever used, it would require that both an initial purchaser and any subsequent purchaser become aware of a towline's load-carrying capacity.

First, strength is of the essence. Towing vessels are the prime movers and sole providers of navigation for the barges, vessels, and objects they are towing. Towlines and associated gear enable them to transmit the forces necessary to maneuver their tows, and they can operate only within the limits of their gear. Undersize (understrength) towlines may break or, at best, reduce their—and therefore their tows'—ability to maneuver.

Proposed § 164.74(a) would require the owner, operator, or master of a vessel engaged in towing astern to ensure that towlines used to tow a barge, vessel, or other object meet certain minimum standards. The sizing ratio between a towing vessel's bollard-pull capability and the towline is crucial. Manufacturers, classification societies, and organizations such as the Cordage Institute provide extensive sizing guidelines listed by a towing vessel's bollard-pull capability, its horsepower rating, or a towline's working-load limit. The Coast Guard would have the mariner evaluate the intended use of the towline, the capabilities of the towing vessel, and other conditions as detailed in § 164.74(a)(1) to determine the appropriate towline size rather than setting specific ratios. This approach should keep the requirements flexible and accommodate technological advances in towline materials.

Second, strength must be readily ascertainable by any user. Towlines often pass among owners of towing vessels. Judging a used towline by the manufacturer's data (or the original tensile test) may lead to a false sense of its minimum breaking strength. A new owner, operator, or master should know the strength of the used towline before counting on the towline. This proposed rule would require a new owner to ascertain that strength.

Third, marlinspike seamanship, winches, and chafing gear affect towline strength. This proposed rule would require freedom from knots and, except in specified circumstances, from terminations in wire clips. It would also require winches that evenly spool and tightly wind towlines. These would extend the life of the towlines by reducing the dangers of crushing, kinking, and rusting.

Fourth, proper maintenance carried out according to regular inspections preserves strength. Plain fatigue may weaken towlines. Sections 164.74(a)(3)(iii) and (iv) propose visual inspections of towlines and assessments of their suitability by people who know what they are looking at; can do something to correct any problems found with it; and would inspect it at a frequency appropriate for the deterioration rate or at least appropriate for the important role the towline plays in navigation safety. Recognizing towline deterioration is not an easy task. Material, environment, and many other factors can affect the deterioration rate of a towline. Manufacturers' guides, training manuals, text books, and other guidelines are available for most materials used to construct towlines. By keeping the requirements general, the proposed rule would accommodate technological advances in towline materials and let the owner, master, or operator tailor a towline-replacement schedule to specific towline use. The proposed requirement to record the inspections would ensure that personnel are aware of the towline's history.

Fifth, safety for the towing vessel and its tow is imperative. Safety of both the vessel and in some instances the barge is addressed by § 164.74(b)(4), which would require an emergency means to disconnect the towline from the vessel. Section 164.74(b)(7) would also require a winch brake capable of controlling the towline as it pays out, even if power to the winch is lost.

*Pushing ahead or alongside.* The Coast Guard and the TSAC working group also discussed towing vessels pushing ahead or alongside. Their gear is very different from conventional towlines, and general guidelines have not been developed. This proposed rule would recognize this, and in § 164.76 would require that owners, masters, or operators assess their gear for suitability. However, it does not detail requirements for size, maintenance, or serviceability. Further research and assessment of this type of gear is being done by a TSAC working group to determine whether additional guidance is necessary. The Coast Guard is

soliciting comments on any guidance that would be appropriate to improve the safety of pushing ahead or towing alongside.

*12. Navigation underway: towing vessels.* This proposed rule would also require in § 164.78 that towing vessels operate under a regulatory regime similar to the navigational-safety regulations for self-propelled vessels of 1,600 or more gross tons when underway on the navigable waters of the United States [compare 33 CFR 164.11]. After all, towing vessels resemble these vessels in many relevant respects. They may handle barges, vessels, or other objects quite as large, various, and hard to control as are these vessels and so may demand equivalent expertise at maneuvering, especially in the various conditions of weather and current that often prevail on the rivers. This regime would apply regardless of the tows' configurations and of those conditions. It would govern both navigational equipment and operation. It would require that, before the towing of barges, vessels, or objects, the owners, operators, or masters of the towing vessels confirm the presence aboard in working order of the necessary gear and check and consider the weather and aids to and other means of navigation while they determine appropriate speed, lights, lookouts, and maneuvering.

*13. Tests and inspections.* Proposed § 164.80 would require that towing vessels test their navigational and control navigational equipment under a regulatory regime similar to the navigational-safety regulations for self-propelled vessels of 1,600 GT or more, detailed in 33 CFR 164.25. Verification of the navigational equipment to be used for maneuvering is essential and can prevent emergencies from arising during crucial transits. In addition, a basic inspection of the navigational equipment used to control the towing vessel, including the towline and terminal gear, would ensure that these essential systems are ready for use. The Coast Guard views the proposed tests and inspections as the least necessary to ascertain whether the vessel is prepared to safely navigate.

*14. Maintenance, failure, and reporting.* Proposed § 164.82 would require that owners, masters, and operators maintain navigational equipment in effective working order. Degraded, poorly maintained equipment can give them a false sense of security and prove more dangerous than inoperative equipment. Modern commercial-grade navigational equipment needs little maintenance and adjustment, but even this equipment may suffer damage by power surges or

improper installation. Older equipment needs appreciably more maintenance and adjustment; for example, slow degradation of radar performance over time may go unnoticed unless dealer-prescribed maintenance and checks take place.

Logs of inoperative equipment reflect the working order of a vessel's equipment to the owner, master, or operator. This proposed rule would require that owners, masters, or operators record inoperative equipment when it fails. This requirement would be similar to though less burdensome than the requirement for ships (compare 33 CFR 164.55). It is based on recommendations from the TSAC working group. Several people attending the public meeting suggested that the rule require only that the operator or master use due diligence to repair inoperative equipment in a timely way. The prompt recording of "down" equipment would certify the time of failure and would emphasize to the owners, masters, and operators the impact of inoperative equipment on the seaworthiness of towing vessels. For instance, where a vessel's only radar set fails during a voyage, the operator must enter the failure in the log and reckon his or her reduced capabilities (the vessel may continue the voyage if the dictates of good seamanship applied to the weather and other circumstances suggest the safety of continuing the voyage.). Even then, however, the operator must use due diligence to arrange for repairs.

Reporting inoperative equipment serves to notify the Coast Guard of the state of that equipment. The Coast Guard needs to know this when a vessel enters a traffic-dense area, such as a Vessel Traffic Service Area, or when the failure of a certain piece of equipment could severely hamper safe navigation. Under § 164.82(d), an owner, master, or operator would have to ask permission to deviate from the rules if he or she wanted to continue to operate his or her vessel with an inoperative radar 96 hours after it had failed. The Coast Guard expects that this permissive "deviation" from normal requirements would be invoked seldom. For radar sets, technical representatives and spare parts are available within 96 hours except in extraordinary cases.

#### **Incorporation by Reference**

The following material would be incorporated by reference in § 164.03: API Specification 9A, Section 3, "Properties and Tests for Wire and Wire Rope"; ASTM D4268-93, "Standard Methods of Testing Fiber Ropes"; CIA-3, "Standard Test Methods including

Required Terminations"; RTCM Paper 71-95/SC112-STD, "RTCM Recommended Standards for Marine Radar Equipment Installed on Ships of Less Than 300 Tons Gross Tonnage, Version 1.1"; and RTCM Paper 191-93/SC112-STD, "RTCM Recommended Standards for Marine Radar Equipment Installed on Ships of 300 Tons Gross Tonnage and Upwards, Version 1.3." Copies of the material are available from the sources listed in § 164.03. Copies of the material are available, for inspection only, where indicated under **ADDRESSES**.

Before publishing a final rule, the Coast Guard will submit this material to the Director of the Federal Register for approval of the incorporation by reference.

#### **Regulatory Evaluation**

This proposed rule is not a significant regulatory action under section 3(f) of Executive Order 12866, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. It has not been reviewed by the Office of Management and Budget under that Order. It is not significant under the regulatory policies and procedures of the Department of Transportation (DOT) (44 FR 11040 (February 26, 1979)).

A draft Regulatory Evaluation under paragraph 10e of the regulatory policies and procedures of DOT has been prepared and is available in the docket for inspection or copying where indicated under **ADDRESSES**. A summary follows.

This rule would apply to all towing vessels greater than 8 meters (26.25 feet) in length operating in U.S. waters. These vessels would have to retain manufacturing specifications on towlines and regularly maintain and inspect them. They would have to carry updated charts or maps and publications, marine radar, and searchlights. Some (depending on service) would also have to carry magnetic compasses or swing-meters, depth-sounders, and electronic position-fixing devices.

#### **Summary of Benefits**

The principal benefits of this proposed rule would be to enhance safety of navigation and reduce the risk of collisions, allisions, and groundings.

The allision in September, 1993, of a tow with a fixed railroad bridge near Mobile, Alabama, established the necessity of navigational-safety equipment for towing vessels. These requirements would reduce damage to the environment by increasing the number of tools at the disposal of a vessel operator, thereby decreasing the likelihood of an accident.

The preliminary findings of studies prepared after the derailment of the Sunset Limited indicate that many owners and operators of towing vessels voluntarily equip their vessels with much of the proposed gear. Review of the kind and amount of equipment voluntarily installed suggests the desirability of the industry's taking these proposed navigational-safety measures. In addition, reliability and performance of modern navigational equipment has improved, which also suggests that mariners are being provided with valued, accurate information. The benefits of each piece of gear being proposed are as follows:

A marine surface-navigation radar is an essential piece of navigational-safety equipment. Not only does it aid in detecting and avoiding other vessels; it helps in constricted waterways and during periods of decreased visibility.

A searchlight also helps in restricted waterways. And it is essential in checking the condition of tows and warning other vessels of the presence of towlines.

A magnetic compass indicates headings, which are critical to safe navigation of vessels in open waters. It allows dead-reckoning in restricted visibility, enables the vessel to fix its position, helps the vessel to determine the effect of winds and currents, and tells the rate of turn for the tow.

A swing-meter, or rate-of-turn indicator, tells the rate of turn for the towing vessel itself, which is valuable for every vessel pushing ahead and is critical for any large, multiple-barge tow pushing ahead. TSAC has indicated the considerable value of this device to a vessel pushing ahead.

A depth-sounder decreases the risk of grounding. It provides immediate information on depth, and also helps fix the vessel's position.

An electronic position-fixing device has become a basic navigational tool on board both offshore and coastal vessels. It supplants plotting by traditional means, for which few towing vessels have either the time or the personnel.

Updated charts or maps and publications have always been a basic navigational tool. They give detailed, recent information on obstructions, routes, bridge clearances, communication channels, river currents, and hazards to navigation.

Finally, owners' and operators' retention of manufacturers' data on the breaking strength of towlines, together with minimal standards of inspection and serviceability, would help to ensure that towlines remain intact throughout transits and are of the appropriate sizes or configurations. The desirability of



keeping tugs made up to their barges appears self-evident.

All of these requirements essentially serve the same purpose: to increase navigational safety for towing vessels and barges on U.S. waters. Although the Coast Guard recognizes that many prudent operators already satisfy them, this rule would codify them, provide basic performance standards for the gear, and compel compliance for vessels not conforming to the sound practices of the majority of the industry.

The benefits from these proposed requirements are significant. But the Coast Guard cannot quantify them from available data.

#### Summary of Costs

The present value of the costs to the towing industry of installing the proposed navigational equipment is, on a very conservative estimate, just under \$31.5 million. This estimate is based on Coast Guard research. It assumes that a high proportion of vessels do not already carry the proposed equipment, and does not factor in the difference in requirements for the difference in routes. Therefore, although it does not include costs for maintenance and repair, the Coast Guard expects that the actual value of the costs to the industry will run significantly lower than \$31.5 million.

The estimated cost for towing vessels 20 meters (65.62 feet) or more in length totals \$9.9 million; this comes to about \$4,600 a vessel. That for those between 8 and 20 meters totals \$21.5 million; this comes to about \$7,000 a vessel. The average cost for smaller vessels, paradoxically, is higher than that for larger ones because the Coast Guard's estimating methodology assumes that a larger proportion of smaller vessels do not already carry the proposed navigational-safety equipment.

This proposed rule would impose recurring costs in following years. There would be three annual components of recurring costs: updates, deviations, and towline testing. (a) Estimated cost of updates would be \$520,000 a year for the purchase of new editions of charts or maps and publications as necessary. (b) Estimated costs of deviations would be about \$50,000 a year, assuming 1,237 of them a year. This number is low because the rule would allow 96 hours to make any necessary repairs. This is to decrease the burden on industry, especially on small entities. (c) Finally, estimated cost of towline testing would be about \$300 a test. At 1,041 tests a year (20 percent of vessels), this component would be \$312,000 a year. These three annual components of recurring costs would total \$882,000.

#### Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), the Coast Guard must consider whether this proposed rule, if adopted, would have a significant economic impact on a substantial number of small entities. "Small entities" may include (1) small businesses and not-for-profit organizations that are not dominant in their field and (2) governmental jurisdictions with populations of less than 50,000.

This proposed rule would require towing vessels to carry and properly use certain navigational-safety equipment and to meet requirements for serviceability and inspection of towlines. It would apply to all towing vessels 8 meters (26.25 feet) or more in length operating on the navigable waters of the United States, except for certain yard and fleeting craft used in restricted service and for towing vessels engaged solely in rescue and assistance.

Voluntary carriage of the navigational-safety equipment addressed in this proposed rule is standard in the industry, and those vessels without equipment, charts or maps, and publications are the exception. The costs of this rule would consist of those incurred by enterprises, marginal in a legal if not an economic sense, to achieve compliance. For those owners, masters, or operators required to purchase equipment, charts or maps, and publications, the costs would be low in comparison with the value of their towing vessel, and in comparison with the damage that could be caused by an accident or a spill.

This proposed rule would provide a 1-year phase-in period for new radar, a 2-year phase-in period for extant radar, and a 5-year phase-in period for depth-sounders. The phase-in periods would let affected entities schedule conversions during normal downtime periods, and would permit small entities sufficient time to explore the market, line up capital, and arrange contracts in advance with retailers. Many suppliers are carrying excess capacity, and bargaining power should favor the small operators with the foresight to take advantage of the grace conferred by phase-in periods.

Because this proposed rule would exempt towing vessels of less than 8 meters in length, certain yard and fleeting craft, and assistance-towing vessels, because of the large number of vessels already in compliance, and because of the phase-in periods for several provisions, the Coast Guard certifies that this rule would not result

in a significant economic impact on a substantial number of small entities.

If, however, you think that your business or organization qualifies as a small entity and that this proposed rule would have a significant economic impact on your business or organization, please submit a comment (see ADDRESSES) explaining why you think it qualifies and in what way and to what degree this rule would economically affect it.

#### Collection of Information

Under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), the Office of Management and Budget (OMB) reviews each proposed rule that contains a collection-of-information requirement to determine whether the practical value of the information is worth the burden imposed by its collection. Collection-of-information requirements include reporting, recordkeeping, notification, and other, similar requirements.

This proposed rule contains collection-of-information requirements in the following sections: 164.72(b), 164.74(a), 164.78(b), and 164.82(b) through 164.82(d). The following particulars apply:

*DOT No.*: 2115.

*OMB Control No.*: 2115-AE91

*Administration*: U.S. Coast Guard.

*Title*: Navigational-Safety Equipment for Towing Vessels

*Need for Information*: This proposed rule would require the mariner to log or otherwise record information necessary for the safe operation of the vessel. These recordkeeping requirements are largely consistent with good commercial practices and the dictates of good seamanship for safe navigation and maintenance of critical navigational-safety equipment. The following is a section-by-section justification of the collection requirements.

Proposed § 164.72(b) would require towing vessels to have on board and maintain navigational charts or maps, and publications. Carriage and proper updating of these charts or maps is essential for safe navigation and is consistent with the dictates of good seamanship.

Proposed § 164.74(a) would require owners, masters, or operators to obtain written verification of towline strength and to maintain this verification either on board the vessel or in company records. It would also require monthly records of towline inspection. Recording of this information is necessary to ensure that the mariner knows the minimum breaking strength of the towline, and is aware of any unusual stress on or wear to the line.



Proposed § 164.78(b) would require a log entry or other onboard documentation of tests and inspections of equipment. Recording is necessary to provide inspectors of the Coast Guard or the company a written record ensuring performance of the required tests and inspections.

Proposed §§ 164.82(b)–(d) would require a record of inoperative navigational-safety equipment and a request for a deviation from these proposed rules if the radar is inoperative for 96 hours or more. This information is necessary because it lets towing vessels continue to operate when extraordinary circumstances make repair of inoperative navigational-safety equipment impracticable and there is no degradation of navigation safety in the vessels' continued operation.

*Proposed Use of Information:* The primary use of this information would be to ensure that the mariner records information necessary for the safe operation and maintenance of the vessel. The secondary use would be to help Coast Guard inspectors to determine whether a vessel is in compliance or, in the case of a casualty, whether failure to meet this proposed rule contributed to the casualty. The Coast Guard has no specific plan to collect these data for statistical analysis.

*Frequency of Response:* The various information called for by this proposed rule would be recorded at different intervals. Updates of charts or maps and publications under proposed § 164.72(b) would be recorded weekly. Towline verification would require, for each towline, recording (though not submittal) of initial manufacturing data once and retainment indefinitely. Entries in inspection logs or other documentation for towlines under proposed § 164.74(a) would require recording at least monthly. The recording under proposed § 164.78(b) of

tests and inspections of equipment would be frequent, and consistent with the underway schedule of the vessel. Finally, the recording of inoperative equipment and the submittal of requests for deviations under proposed §§ 164.82(b) through (d) would occur infrequently, when certain navigational-safety equipment fails at all or certain other equipment is inoperative for greater than 96 hours.

*Burden Estimate:* 336,102.08 hours.

*Respondents:* 5,203 owners, masters, or operators of towing vessels.

*Average Burden Hours A Respondent:* 64.6 annual hours a respondent.

The Coast Guard has submitted the requirements to OMB for review under sub-§ 3504(h) of the Paperwork Reduction Act. Persons submitting comments on the requirements should submit their comments both to OMB and to the Coast Guard where indicated under **ADDRESSES**.

#### Federalism

The Coast Guard has analyzed this proposed rule under the principles and criteria contained in Executive Order 12612 and has determined that this rule does not have sufficient implications for federalism to warrant the preparation of a Federalism Assessment.

#### Environment

The Coast Guard has considered the environmental impact of this rule and concluded that, under paragraphs 2.B.2e(34) (d) and (e) of Commandant Instruction M16475.1B, this rule is categorically excluded from further environmental documentation. This rule concerns only equipment approval. Approved equipment should contribute to the reduction of the occurrences of ship-generated oil spills in the marine environment. A "Categorical Exclusion Determination" is available in the

docket for inspection or copying where indicated under **ADDRESSES**.

#### List of Subjects in 33 CFR Part 164

Marine safety, Navigation (water), Reporting and recordkeeping requirements, Waterways.

For the reasons set out in the preamble, the Coast Guard proposes to amend 33 CFR part 164 as follows:

### PART 164—NAVIGATION SAFETY REGULATIONS

1. The citation of authority for Part 164 is revised to read as follows:

Authority: 33 U.S.C. 1223, 1231; 46 U.S.C. 2103, 3703; 49 CFR 1.46. Sec. 164.13 also issued under 46 U.S.C. 8502. Sec. 164.61 also issued under 46 U.S.C. 6101.

2. In § 164.01, paragraph (b) is added to read as follows:

#### § 164.01 Applicability.

\* \* \* \* \*

(b) Sections 164.70 through 164.82 of this part apply to each towing vessel of 8 meters (26.25 feet) or more in length operating in the navigable waters of the United States other than the St. Lawrence Seaway; except that a towing vessel is exempt from the requirements of § 164.72 if it is used solely—

(1) Within a limited geographic area, such as a particular fleeting-area for barges or commercial facility, and used solely for restricted service, such as making up or breaking up larger tows; or

(2) For assistance towing as defined by 46 CFR 10.103.

3. Section 164.03 is amended by revising paragraph (b) to read as follows:

#### § 164.03 Incorporation by reference.

\* \* \* \* \*

(b) The materials approved for incorporation by reference in this part and the sections affected are as follows:

American Petroleum Institute (API):	
1220 L Street, Northwest, Washington, DC 20005, API Specification 9A, Section 3, Properties and Tests for Wire and Wire rope, 1984 .....	164.74
American Society for Testing and Materials (ASTM):	
1916 Race Street, Philadelphia, PA 19103. ASTM D4268–93, Standard Methods of Testing Fiber Ropes, 1993 .....	164.74
Cordage Institute:	
350 Lincoln Street, Hingham, MA 02043, CIA–3, Standard Test Methods including Required Terminations, 6/80 .....	164.74
International Maritime Organization (IMO):	
4 Albert Embankment, London SE1 7SR, U.K., IMO Resolution A342(IX), Recommendation on Performance Standards for Automatic Pilots, adopted November 12, 1975 .....	164.13
International Telecommunication Union Radiocommunication Bureau (ITU–R):	
Place de Nations CH–1211 Geneva 20 Switzerland:	
(1) ITU–R Recommendation M.821, Optional Expansion of the Digital Selective-Calling System for use in the Maritime Mobile Service, 1992 .....	164.43
(2) ITU–R Recommendation M.825, Characteristics of a Transponder System using Digital Selective-Calling Techniques for use with Vessel Traffic Services and Ship-to-Ship Identification, 1992 .....	164.43
Radio Technical Commission for Maritime Services:	
655 Fifteenth St., N.W., Suite 300, Washington, DC 20005:	
(1) [Paper 12–78/DO–100], Minimum Performance Standards, Loran C Receiving Equipment, 12/20/77 .....	164.41
(2) [Paper 194–93/SC104–STD], RTCM Recommended Standards for Differential NAVSTAR GPS Service, Version 2.1, 1994 .....	164.43

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| (3) [Paper 71-95/SC112-STD], RTCM Recommended Standards for Marine Radar Equipment Installed on Ships of Less Than 300 Tons Gross Tonnage, Version 1.1, 1995 .....    | 164.72 |
| (4) [Paper 191-93/SC112-STD], RTCM Recommended Standards for Marine Radar Equipment Installed on Ships of 300 Tons Gross Tonnage and Upwards, Version 1.3, 1993 ..... | 164.72 |

4. Sections 164.70, 164.72, 164.74, 164.76, 164.78, 164.80, and 164.82 are added to read as follows:

**§ 164.70 Definitions.**

For the purposes of §§ 164.72 through 164.82, the term—

*Current edition* means the most recent published version of a publication, chart, or map required by § 164.72.

*Currently corrected* means a current or previous edition of a publication required by § 164.72, corrected with changes that come from Notices to Mariners or Notices to Navigation reasonably available and that apply to the vessel's transit.

*Departing from port* means departing from an anchorage or facility for a transit beyond U.S. navigable waters as established in 33 CFR 2.05-25.

*Great Lakes* means the Great Lakes and their connecting and tributary waters including the Calumet River as far as the Thomas J. O'Brien Lock and Controlling Works (between miles 326 and 327), the Chicago River as far as the east side of the Ashland Avenue Bridge (between miles 321 and 322), and the Saint Lawrence River as far east as the lower exit of Saint Lambert Lock.

*River* means any river, canal, or other, similar body of water designated by the Officer in Charge, Marine Inspection.

*Swing-meter* means an electronic or electric device that indicates the rate of turn of the vessel on board which it is installed.

*Towing vessel* means a commercial vessel engaged in or intending to engage in the service of pulling, pushing, or hauling along side, or any combination of pulling, pushing, or hauling along side.

*Western rivers* means the Mississippi River, its tributaries, South Pass, and Southwest Pass, to the navigational-demarcation lines dividing the high seas from harbors, rivers, and other inland waters of the United States, and the Port Allen—Morgan City Alternative Route, and that part of the Atchafalaya River above its junction with the Port Allen—Morgan City Alternative Route including the Old River and the Red River and those waters specified by 33 CFR 89.25.

**§ 164.72 Navigational-safety equipment, charts or maps, and publications required on towing vessels.**

(a) Except as provided by § 164.01(b) (1) and (2), each towing vessel must be

equipped with the following navigational-safety equipment:

(1) *Marine radar*. By [date 1 year after the effective date of the final rule.], a marine radar that meets the following applicable requirements:

(i) For a vessel of less than 300 gross tons that engages in towing on navigable waters of the U.S., including rivers and Western rivers, the radar must meet—

(A) The requirements of the Federal Communications Commission (FCC) specified by 47 CFR Part 80; and

(B) RTCM Standard for Marine Radar Equipment Installed on Ships of Less Than 300 Tons Gross Tonnage, RTCM Paper 71-95/SC112-STD, Version 1.1, display Category II and stabilization Category Bravo.

(ii) For a vessel of less than 300 gross tons that engages in towing seaward of navigable waters of the U.S. or more than three nautical miles from shore on the Great Lakes, the radar must meet—

(A) The requirements of the FCC specified by 47 CFR Part 80; and

(B) RTCM Standard for Marine Radar Equipment Installed on Ships of Less Than 300 Tons Gross Tonnage, RTCM Paper 71-95/SC112-STD, Version 1.1, display Category I and stabilization Category Alpha.

(iii) For a vessel of 300 gross tons or more that engages in towing, the radar must meet RTCM Recommended Standards for Marine Radar Equipment Installed on Ships of 300 Tons Gross Tonnage and Upwards, Version 1.3, RTCM Paper 191-93/SC112-STD.

(iv) A towing vessel with an existing radar must meet the applicable requirements of paragraphs (a)(1) (i) through (iii) of this section by [date 2 years after effective date of the final rule.]; except that a towing vessel with an existing radar must meet the display and stabilization requirements of paragraph (a)(1)(ii)(B) of this section by [date 5 years after effective date of the final rule.].

(2) *Searchlight*. A searchlight, directable from the vessel's main steering station and intense enough to help aid in navigation, docking, and checking the condition of the tow.

(3) *VHF-FM radio*. An installation or multiple installations of VHF-FM radios as prescribed by Part 26 of this chapter and 47 CFR Part 80, to maintain a continuous listening watch on the designated calling channel, VHF-FM Channel 13 (except on portions of the Lower Mississippi River, where VHF-

FM Channel 67 is the designated calling channel), and to separately monitor the International Distress and Calling Channel, VHF-FM Channel 16, except when transmitting or receiving traffic on other VHF-FM channels or when participating in a Vessel Traffic Service (VTS) or monitoring a channel of a VTS. (Each U.S. towing vessel of 26 feet (about 8 meters) or more in length, except a public vessel, must hold a ship-radio station license for radio transmitters (including radar and EPIRBs), and each operator must hold a restricted operator's licence or higher. To get an application for either licence, call (800) 418-FORM or (202) 418-FORM, or write to the FCC; Wireless Bureau, Licensing Division; 1270 Fairfield Road; Gettysburg, PA 17325-7245.)

(4) *Magnetic compass*. Either—

(i) An illuminated swing-meter or card-type magnetic steering compass readable from the vessel's main steering station, if the vessel engages in towing exclusively on rivers or Western rivers; or

(ii) An illuminated card-type magnetic steering compass readable from the vessel's main steering station.

(5) *Echo depth-sounding device*. By [date 5 years after the effective date of the final rule.], an echo depth-sounding device readable from the vessel's main steering station, unless the vessel engages in towing exclusively on rivers or Western rivers.

(6) *Electronic position-fixing device*. An electronic position-fixing device, either a LORAN-C receiver or a satellite navigational system such as the Global Positioning System (GPS) as required by § 164.41, if the vessel engages in towing seaward of navigable waters of the U.S. or more than three nautical miles from shore on the Great Lakes.

(b) Each towing vessel must carry on board and maintain the following:

(1) *Charts or maps*. Marine charts or maps of the area to be transited, published by the National Ocean Service, the Army Corps of Engineers, or a river authority that are—

(i) Of a large enough scale and have enough detail to make safe navigation of the area possible; and

(ii) Either—

(A) The current edition, if the vessel engages in towing exclusively on navigable waters of the U.S., including rivers and Western rivers; or

(B) Currently corrected, if the vessel engages in towing seaward of navigable

waters of the U.S. or more than three nautical miles from shore on the Great Lakes.

(2) *General publications.* A currently corrected edition of, or an applicable currently corrected extract from, each of the following publications for the area to be transited:

(i) If the towing vessel is engaged in towing exclusively on rivers and Western rivers—

(A) U.S. Coast Guard Light List;

(B) Applicable Notice to Navigation published by the U.S. Army Corps of Engineers, or Local Notice to Mariners

published by the Coast Guard, for the area to be transited, when available; and

(C) River-current tables published by the Army Corps of Engineers or a river authority, if available.

(ii) If the vessel is engaged other than in towing exclusively on rivers and Western rivers—

(A) Coast Guard Light List;

(B) Coast Guard Local Notice to Mariners;

(C) Tidal-current tables published by the National Ocean Service, or river-current tables published by the Army Corps of Engineers or a river authority;

(D) Tide tables published by the National Ocean Service; and

(E) U.S. Coast Pilot.

(3) *Inland Navigation Rules.* The owner, master, or operator of each self-propelled vessel of 12 meters (39.38 feet) or more in length shall carry on board and maintain for ready reference a current edition of the Inland Navigation Rules as required by 33 CFR 88.05.

(c) Table 164.72, following, summarizes the navigational-safety equipment, charts or maps, and publications required for towing vessels of 8 meters or more in length engaged in towing:

TABLE 164.72.—EQUIPMENT, CHARTS, AND PUBLICATIONS FOR TOWING VESSELS OF 8 METERS OR MORE IN LENGTH

	Rivers and western rivers	U.S. navigable waters other than rivers or western rivers	Waters seaward of U.S. navigable waters and 3 NM or more from shore on the Great Lakes
Marine Radar:			
(1) Towing Vessels of Less than 300 GT.	RTCM Paper 71-95/SC112-STD Version 1.1, Display Category II <sup>1</sup> Stabilization Category BRAVO.	RTCM Paper 71-95/SC112-STD Version 1.1, Display Category II <sup>1</sup> Stabilization Category BRAVO.	RTCM Paper 71-95/SC112-STD Version 1.1, Display Category I <sup>2</sup> Stabilization Category ALPHA.
(2) Towing Vessels of 300 GT or More.	RTCM Paper 191-93/SC112-STD Version 1.3.	RTCM Paper 191-93/SC112-STD Version 1.3.	RTCM Paper 191-93/SC112-STD Version 1.3.
Searchlight .....	X	X	X
VHF-FM Radios .....	X	X	X
Magnetic Compass .....	X <sup>3</sup>	X	X
Swing-Meter .....	X <sup>3</sup>		
Echo Depth—Sounding Device .....		X	X
Electronic Position—Fixing Device .....			X
Charts or Maps .....	(1) Large enough scale .....	(1) Large enough scale .....	(1) Large enough scale.
	(2) Current edition .....	(2) Current edition .....	(2) Currently corrected.
General Publications .....	(1) U.S. Coast Guard Light List ...	(1) U.S. Coast Guard Light List ...	(1) U.S. Coast Guard Light List.
	(2) Notice to Navigator or Local Notice to Mariners.	(2) Local Notice to Mariners .....	(2) Local Notice to Mariners.
	(3) River Current Tables .....	(3) Tidal Current Tables .....	(3) Tidal Current Tables.
		(4) Tide Tables .....	(4) Tide Tables.
Inland Navigation Rules (if the vessel is of 12 meters or more in length).	X	(5) U.S. Coast Pilot .....	(5) U.S. Coast Pilot.
		X	X

**Notes:**

<sup>1</sup> Towing vessels with existing radar must meet this requirement by [Date 2 years after effective date of the rule.]

<sup>2</sup> Towing vessels with existing radar must meet display and stabilization requirements by [Date 5 years after effective date of the rule.]

<sup>3</sup> Towing vessels may carry either a swing—meter or a magnetic compass.

**§ 164.74 Towline and terminal gear for towing astern.**

(a) *Towline.* The owner, master, or operator of each vessel towing astern shall ensure that the strength of each towline is adequate for its intended service, considering at least the following factors:

(1) The size and material of each towline must be—

(i) Appropriate for the horsepower or bollard pull of the vessel;

(ii) Appropriate for the static loads and dynamic loads expected during the intended service;

(iii) Appropriate for the sea conditions expected during the intended service;

(iv) Appropriate for the temperatures of normal stowage and service on board the vessel;

(v) Compatible with associated navigational-safety equipment;

(vi) Appropriate for the likelihood of mechanical damage; and

(vii) Appropriate for exposure to the marine environment and to any chemicals used or carried on board the vessel.

(2) Each towline as rigged must—

(i) Be free of knots;

(ii) Be spliced with a thimble, or have a poured socket at its end; and

(iii) Be free of wire clips except for temporary repair. In the case of temporary repair, the towline must have a thimble and either five wire clips or

as many wire clips as the manufacturer specifies for the nominal diameter and construction of the towline, whichever is more.

(3) The condition of each towline must be monitored through the—

(i) Keeping on board the towing vessel or in company files of a record of the towline's initial minimum breaking strength as determined by the manufacturer, by a recognized classification society, or by a tensile test that meets API Specification 9A, Section 3; ASTM D4268-93; or Cordage Institute CIA 3, Standard Test Methods;

(ii) Keeping on board the towing vessel or in company files of a record of each retest of the towline's minimum

breaking strength as determined by a recognized classification society or by a tensile test that meets API Specification 9A, Section 3; ASTM D4268-93; or Cordage Institute CIA 3, Standard Test Methods, if the towline is purchased from another owner, master, or operator of a towing vessel with the intent to use it as a towline or if the towline is retested for any reason;

(iii) Conducting of visual inspections of the towline in accordance with the manufacturer's recommendations, or at least monthly, and whenever the serviceability of the towline is in doubt (the inspections must be conducted by the owner, master, or operator, or by a person on whom the owner, master, or operator confers the responsibility to take corrective measures appropriate for the use of the towline);

(iv) Evaluating of the serviceability of the whole towline or any part of the towline, and removing the whole or part from service either as recommended by the manufacturer or a recognized classification society or in accordance with a replacement schedule developed by the owner, master, or operator that accounts for at least the—

(A) Sea miles or time in service of the towline;

(B) Operating conditions experienced by the towline;

(C) History of loading, including any shock loading, of the towline;

(D) Surface condition, including corrosion and discoloration, of the towline;

(E) Amount of visible damage to the towline;

(F) Amount of material deterioration indicated by measurements of diameter and, if applicable, of lay extension of the towline; and

(G) Point at which a tensile test proves the minimum breaking strength of the towline inadequate by the standards of paragraph (a)(1) of this section; and

(v) Keeping on board the towing vessel or in company files of a record of the material condition of the towline when inspected under paragraph (a)(3)(iii) of this section. Once this record lapses for three months or more, except for a vessel that is laid up or out of service or has not deployed its towline, the owner, master, or operator shall retest the towline or remove it from service.

(b) *Terminal gear.* The owner, master, or operator of each vessel towing astern shall ensure that the gear used to control, protect, and connect each towline meets the following criteria:

(1) The material and size of the terminal gear are appropriate for the

strength and anticipated loading of the towline and for the environment;

(2) Each connection is secured by at least one nut with at least one cotter pin or other means of preventing its failure;

(3) The lead of the towline is appropriate to prevent sharp bends in the towline from fairlead blocks, chocks, or tackle;

(4) There is provided a method, whether mechanical or non-mechanical, of emergency release for the towline that does not endanger operating personnel;

(5) The towline is protected from abrasion or chafing by chafing gear, lagging, or other means;

(6) Except on board a vessel towing in ice on Western rivers or one using a towline of synthetic or natural fiber, there is fitted a winch that evenly spools and tightly winds the towline; and

(7) If a winch is fitted, there is attached to the main drum a brake that has a holding power appropriate for the horsepower or bollard pull of the towing vessel and can be operated without power to the winch.

#### **§ 164.76 Towline and terminal gear for towing alongside and pushing ahead.**

The owner, master, or operator of each vessel towing alongside or pushing ahead shall ensure that the face wires, spring lines, and push gear used are appropriate for the vessel's horsepower, are appropriate for the arrangement of the tow, are frequently inspected, and remain serviceable.

#### **§ 164.78 Navigation underway: towing vessels.**

(a) The owner, master, or operator of each vessel towing shall ensure that each person directing and controlling the movement of the vessel—

(1) Understands the arrangement of the tow and the effects of maneuvering on the towing vessel and on the vessel, barge, or object being towed;

(2) Can fix the position of the vessel using installed navigational equipment, external fixed aids to navigation, geographic reference-points, and hydrographic contours;

(3) Does not fix the position of the vessel using buoys alone (Buoys are aids to navigation placed in approximate positions either to alert mariners to hazards to navigation or to indicate the orientation of a channel. They may not maintain exact charted positions, because strong or varying currents, heavy seas, ice, and collisions with vessels can move or sink them or set them adrift. Although they may corroborate a position fixed by other means, they cannot fix a position; however, if no other aids are available, buoys alone may establish an estimated position.);

(4) Evaluates the danger of each closing visual or radar contact;

(5) Knows and applies the variation and deviation where a magnetic compass is fitted and where charts or maps have enough detail to enable this type of correction;

(6) Knows the current speed, current direction, set, drift, and tidal state for the area to be transited; and

(7) Proceeds at a speed prudent for the weather, visibility, traffic density, tow draft, possibility of wake damage, current speed, and local speed-limits.

(b) The owner, master, or operator of each vessel towing shall ensure that the tests and inspections required by § 164.80 are conducted and that the results are entered in the log or other record carried on board.

#### **§ 164.80 Tests and inspections.**

(a) The owner, master, or operator of each towing vessel of less than 1600 GT shall ensure that tests and inspections of gear occur before departing from port or at least weekly, to include—

(1) *Steering-systems.* A test of the steering-gear-control system; a test of the main steering gear from the alternative power supply, if installed; a verification of the rudder-angle indicator relative to the actual position of the rudder; and a visual inspection of the steering gear and its linkage;

(2) *Communications.* Operation of all internal vessel-control communications and vessel-control alarms, if installed;

(3) *Lights.* Operation of navigational lights and all searchlights;

(4) *Terminal gear.* Visual inspection of tackle; of connections of bridle and towing pendant, if applicable; of chafing gear; and of winch-brake mechanism, if installed; and

(5) *Propulsion systems.* Visual inspection of the spaces for main propulsion machinery, of machinery, and of devices for monitoring machinery.

(b) The owner, master, or operator of each towing vessel of 1600 GT or more shall ensure that tests of equipment occur at the frequency required by § 164.25 and that inspections of gear occur before departing from port or at least weekly, to include—

(1) *Navigational equipment.* Tests of onboard equipment as required by § 164.25; and

(2) *Terminal gear.* Visual inspection of tackle; of connections of bridle and towing pendant, if applicable; of chafing gear; and of the winch-brake mechanism, if installed.

#### **§ 164.82 Maintenance, failure, and reporting.**

(a) *Maintenance.* The owner, master, or operator of each towing vessel shall

maintain operative, the navigational-safety equipment required by § 164.72.

(b) *Failure.* If any of the navigational-safety equipment required by § 164.72 fails during a voyage, the owner, master, or operator of the towing vessel shall exercise due diligence to repair it at the earliest practicable time. He or she shall enter its failure in the log or other record carried on board. The failure of equipment, in itself, does not constitute a violation of this rule; nor does it constitute unseaworthiness per se; nor does it obligate an owner, master, or operator to moor or anchor the vessel. However, the owner, master, or operator shall consider the state of the equipment—along with such factors as weather, visibility, traffic, and the dictates of good seamanship—in deciding whether it is safe for the vessel to proceed.

(c) *Reporting.* The owner, master, or operator of each towing vessel whose equipment is inoperative or otherwise impaired while the vessel is operating within a Vessel Traffic Service Area shall report the fact as required by 33 CFR 161.124.

(d) *Deviation.* The owner, master, or operator of each towing vessel unable to repair within 96 hours an inoperative marine radar required by § 164.72(a) shall seek from the Captain of the Port both deviation from the requirements of this section and authorization for continued operation in the area to be transited. Failure of redundant navigational-safety equipment, including but not limited to failure of one of two installed radars, where both satisfy § 164.72(a), does not necessitate either deviation or authorization.

(1) The request for deviation must be written, must explain why immediate repair is impracticable, and must state when and by whom the repairs will be made.

(2) The Captain of the Port, upon written request, may, in writing, authorize a deviation from any of the provisions of §§ 164.70 through 164.82 for a specified, limited time if he or she decides that the deviation would not impair the safe navigation of the vessel under anticipated conditions.

Dated: September 26, 1995.

J.A. Creech,

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Office of Navigation Safety and Waterway  
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